



## INTERNATIONAL CIVIL AVIATION ORGANIZATION

## WESTERN AND CENTRAL AFRICAN OFFICE

## SIXTENTH MEETING OF AFISNET SATELLITE MANAGEMENT COMMITTEE

(Dakar, 17-19 December 2007)

**Agenda Item 2: Review of operational statistics of availability for AFISNET- supported links***(Presented by ASECNA)***SUMMARY**

The present Working Paper aims to:

- Address deficiencies in the aeronautical telecommunications fields regarding ASECNA and NAMA ;
- Propose technical solutions to overcome these deficiencies;

**1 – Background**

**1.1** To provide safe Air Navigation Services, the AFI plan requires ATS/DS and AFTN circuits for the coordination between Nigeria ATS centres (Lagos, Kano) and ASECNA's Brazzaville, Libreville, Douala, N'Djamena, Niamey and Cotonou centres.

**1.2** Since 1993, most of these circuits have been implemented via the AFISNET and NAMA and ASECNA respective centres endeavour to maintain and improve the availability and reliability of these links.

**1.3** The last SNMC meeting hosted in Abuja (Nigeria) from 13th-17th, 2006, through the **conclusion 15/02** invited NAMA, GCAA and ASECNA to restore stability and reliability of the low performance links: ACCRA/BRAZZAVILLE, KANO/ACCRA; KANO/DOUALA, KANO/LIBREVILLE, LAGOS/ACCRA, LAGOS/DOUALA and LAGOS/LIBREVILLE.

**1.4** The ATS/DS and AFTN circuits Lagos /Cotonou, implemented via the microwave link installed since 1990, record a very low performance since a few years and require to be upgraded.

**2 – Discussion**

**2.1** The tables below present the availability of the AFTN circuits between NAMA and ASECNA area. Availability and stability of most of the circuits require to be improved.

**Lagos: AFTN availability**

	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Cotonou	29,84%	35,78%	81,07%	32,95%
Libreville	7,48%	0%	0%	0%
Douala	5,75%	0%	0%	0%

**Kano: AFTN availability**

	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Niamey	77,16%	97,47%	97,88%	96,78%
Douala	34%	79,2%	64,51%	82,51%
Libreville	0%	0%	0%	0%
Ndjamena	84,46%	15,97%	29,68%	99,78%

Maduguri/Ndjamena: unserviceable for a long time.

**2.2** A NAMA/ASECNA coordinate program is urgently required to restore the stability and the availability of these important circuits for the provision of a safe air navigation service.

**2.3** Exchange of personnel (operational and technical) and adoption of procedure of maintenance between the specified centres (Nigeria and ASECNA centres) will contribute to improve the availability of the services.

**2.4** Regarding Lagos/Cotonou ATS/DS and AFTN circuits, the stability of this circuit could be restored by implementing these circuits by satellite links using the AFISNET. The complementary equipments to be provided at Lagos and Cotonou nodes are gathered in the following tables

***Complementary Equipments***

**BENIN (ASECNA)**

<b>Item</b>	<b>Quantity</b>	<b>Site &amp; link</b>
<b>IBS digital modem</b>	<b>2</b>	<b>COO (1 Spear)</b>
<b>Frame Relay Access Device</b>	<b>-</b>	<b>Use of the existing MOL 2P</b>
<b>Connectors and miscellaneous items</b>	<b>-</b>	<b>COO</b>
<b>Installing &amp; training in Cotonou</b>	<b>1 Week</b>	<b>COO</b>

**NIGERIA (NAMA)**

<b>Item</b>	<b>Quantity</b>	<b>Site &amp; link</b>
<b>IBS digital modem</b>	<b>2</b>	<b>LOS (1 spear)</b>
<b>Frame Relay Access Device</b>	<b>-</b>	<b>Use of the existing MOL 2P</b>
<b>Connectors and miscellaneous items</b>	<b>-</b>	<b>LOS</b>
<b>Installing &amp; training Lagos</b>	<b>1 Week</b>	<b>LOS</b>

**3 – Action by the meeting**

The meeting is invited to:

- note the above information,
- to endorse the proposal to upgrade the Cotonou/Lagos AFTN and ATS/DS link by implementing an IBS AFISNET satellite link Lagos/Cotonou;
- to agree on a schedule to solve the various aeronautical fixed service deficiencies